SFA Modernization Program United States Department of Education Student Financial Aid



SFAPortal V1.0

Detailed Database Design

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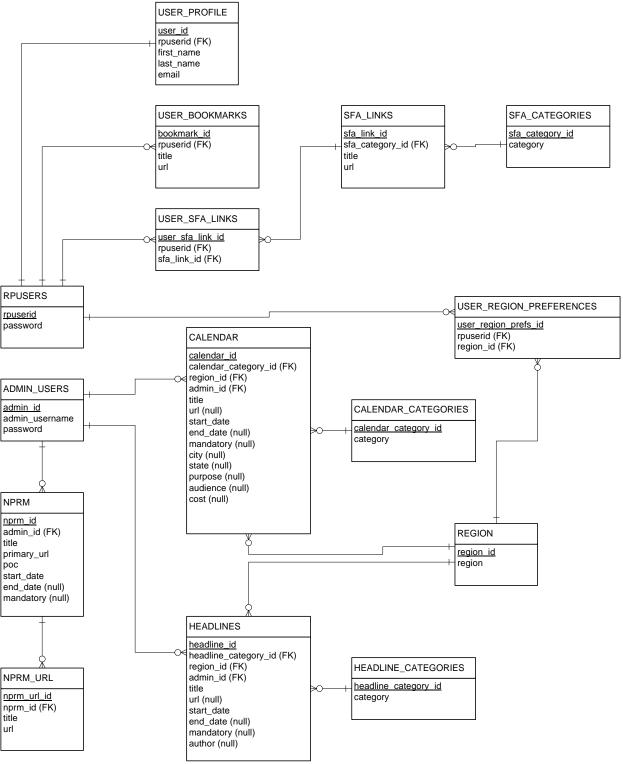
SFA Portal Database Design

This document describes the layout of the relational database used in the implementation of the SFA Portal **version 1.02**. The database serves the following purposes:

- The database maintains user profiles and preferences, allowing them to store their own bookmarks as well as filter settings for SFA Links, Headlines, Calendar Events;
- The database provides persistent storage for the Headlines, Calendar Events, and NPRMs:
- The database contains the administrator accounts for the system, enabling tracking of modifications to the Headlines, Calendar Events, and NPRMs.

The ERD for the database is shown below. Detailed descriptions of the tables that make up the database are described in the following sections. In the table descriptions, primary keys are denoted by **bold** text, foreign keys by *italics*. Fields cannot be NULL unless otherwise indicated.

Figure 1: SFA Portal Database ERD



The ADMIN_USERS Table

This table contains the administrator accounts for the SFA Portal. It is used as a foreign key into other tables to identify which administrator created or modified entries in the Calendar, Headlines, or NPRM tables.

Row Name	Format	Description
admin_id	NUMBER	Primary key used to uniquely identify
		administrators in the table. Should only be set
		by using the associated admin_id sequence.
admin_username	VARCHAR2(16)	The username for the administrator.
password	VARCHAR2(16)	The password for the administrator.

The CALENDAR Table

This table contains the Calendar Event listings for the SFA Portal.

Format	Description
NUMBER	Primary key used to uniquely identify
	Calendar entries in the table. Should only
	be set by using the associated calendar_id
	sequence.
VARCHAR2(100)	The id of the administrator that created or
	last modified this entry from the
	ADMIN_USERS table. Can be NULL.
NUMBER	The id of the calendar category of this entry,
	from the CALENDAR_CATEGORIES
	table.
NUMBER	The id of the region from the REGION
111 D G11 1 D G (1 0 0)	table. Can be NULL.
VARCHAR2(100)	The displayed heading text for the Calendar
MADOLIADO(100)	entry
VARCHAR2(100)	The URL to link to when clicking on the
DATE	title of the Calendar entry. Can be NULL.
	The starting date of this Calendar entry.
DATE	The ending date of this Calendar entry. Can
	be NULL. If it is NULL, end_date is taken to be the same as start date.
VADCHAD2(10)	Whether or not this Calendar entry can be
VARCHAR2(10)	filtered by the users. Valid values are
	"true" and "false" (case sensitive).
VARCHAR2(40)	The city in which the entry takes place.
VARCIAR2(40)	Can be NULL.
VARCHAR2(2)	The state in which the entry takes place.
VIII(2)	Can be NULL.
VARCHAR2(500)	The purpose or long description of the
(000)	entry. Can be NULL.
NUMBER	The cost of the event described by the entry.
	Can be NULL.
VARCHAR2(25)	The target audience for the entry. Can be
, ,	NULL.
	NUMBER VARCHAR2(100) NUMBER NUMBER VARCHAR2(100) VARCHAR2(100) DATE DATE VARCHAR2(10) VARCHAR2(40) VARCHAR2(2) VARCHAR2(500) NUMBER

The CALENDAR_CATEGORIES Table

This table contains the categories used to organize Calendar Events in the SFA Portal. In Version 1 there are three categories: "Events", "Deadlines", and "Training".

Row Name	Format	Description
calendar_category_id	NUMBER	Primary key used to uniquely identify
		calendar categories in the table. Should
		only be set by using the associated
		calendar_category_id sequence.
category	VARCHAR2(100)	The name of the category.

The HEADLINES Table

This table contains the Headline listings for the SFA Portal.

Row Name	Format	Description
headline_id	NUMBER	Primary key used to uniquely identify
		Headlines in the table. Should only be set
		by using the associated headline_id
		sequence.
admin_id	VARCHAR2(100)	The id of the administrator that created or
		last modified this entry from the
		ADMIN_USERS table. Can be NULL.
headline_category_id	NUMBER	The id of the headline category of this
		headline, from the
		HEADLINE_CATEGORIES table.
region_id	NUMBER	The id of the region for this headline from
		the REGION table. Can be NULL.
title	VARCHAR2(100)	The displayed heading text for the Headline
url	VARCHAR2(100)	The URL to link to when clicking on the
		title of the Headline. Can be NULL.
start_date	DATE	The starting date of this Headline.
end_date	DATE	The ending date of this Headline. Can be
		NULL. If it is NULL, end_date is taken to
		be the same as start_date.
mandatory	VARCHAR2(10)	Whether or not this Headline can be filtered
		by the users. Valid values are "true" and
		"false" (case sensitive).
author	VARCHAR2(50)	The author of this entry. Can be NULL.

The HEADLINE_CATEGORIES Table

This table contains the categories used to organize Headlines in the SFA Portal. In Version 1 there are two categories: "SFA News" and "SFA Policy and Rule Changes".

Row Name	Format	Description
headline_category_id	NUMBER	Primary key used to uniquely identify
		headline categories in the table. Should
		only be set by using the associated
		headline_category_id sequence.
category	VARCHAR2(100)	The name of the category.

The NPRM Table

This table contains the NPRM listings for the SFA Portal.

Row Name	Format	Description
nprm_id	NUMBER	Primary key used to uniquely identify NPRMs in
		the table. Should only be set by using the
		associated nprm_id sequence.
admin_id	VARCHAR2(100)	The id of the administrator that created or last
		modified this entry from the ADMIN_USERS
		table. Can be NULL.
title	VARCHAR2(100)	The displayed heading text for the NPRM
primary_url	VARCHAR2(100)	The URL to link to when clicking on the title of
		the NPRM. Can be NULL.
poc	VARCHAR2(100)	E-mail address of the POC for this NPRM.
start_date	DATE	The starting date of this NPRM.
end_date	DATE	The ending date of this NPRM. Can be NULL.
		If it is NULL, end_date is taken to be the same
		as start_date.
mandatory	VARCHAR2(10)	Whether or not this NPRM can be filtered by the
		users. Valid values are "true" and "false" (case
		sensitive).

The NPRM_URL Table

This table contains the sub-URLs for the NPRMs in the SFA Portal.

Row Name	Format	Description
nprm_url_id	NUMBER	Primary key used to uniquely identify NPRMs in
		the table. Should only be set by using the
		associated nprm_url_id sequence.
nprm_id	NUMBER	The id of the NPRM that contains this URL.
title	VARCHAR2(100)	The displayed heading text for the NPRM
url	VARCHAR2(100)	The URL to link to when clicking on the title of
		the NPRM sub-URL. Can be NULL.

The RPUSERS Table

This table is provided by Viador and should not be modified in any way. It is used to hold the Viador user accounts and is used as a foreign key into other tables.

Row Name	Format	Description
rpuserid	NUMBER(30)	Primary key used to uniquely identify users in
		the table.
password	VARCHAR2(100)	The encrypted password for the user.

The SFA_CATEGORIES Table

This table contains the categories used to organize the SFA Links that will be displayed in the SFA Portal "SFA Links" section.

Row Name	Format	Description
SFA_category_id	NUMBER	Primary key used to uniquely identify
		categories in the table. Should only be set
		by using the associated SFA_category_id
		sequence.
category	VARCHAR2(100)	The name of the category.

The SFA_LINKS Table

This table contains the SFA Links that will be displayed in the SFA Portal "SFA Links" section.

Row Name	Format	Description
SFA_link_id	NUMBER	Primary key used to uniquely identify SFA
		Links in the table. Should only be set by
		using the associated SFA_link_id
		sequence.
SFA_category_id	NUMBER	The category to which this link belongs.
		From the SFA_CATEGORIES table.
title	VARCHAR2(100)	The displayed heading text for the SFA
		Link
url	VARCHAR2(100)	The URL to link to when clicking on the
		title of the SFA Link.

The USER_BOOKMARKS Table

This table contains the personal bookmarks that the user wishes to be displayed in the SFA Portal.

Row Name	Format	Description
bookmark_id	NUMBER	Primary key used to uniquely identify
		bookmarks in the table. Should only be set
		by using the associated bookmark_id
		sequence.
rpuserid	NUMBER(30)	The user to which this bookmark belongs.
		From the RPUSERS table.
title	VARCHAR2(100)	The displayed heading text for the
		bookmark
url	VARCHAR2(100)	The URL to link to when clicking on the
		title of the bookmark.

The USER_PROFILE Table

This table contains the personal information about a user of the SFA Portal.

Row Name	Format	Description
user_id	NUMBER	Primary key used to uniquely identify
		users in the table. Should only be set by
		using the associated user_id sequence.
rpuserid	NUMBER(30)	The user to which this profile belongs.
		From the RPUSERS table.
first_name	VARCHAR2(100)	The first name of the user
last_name	VARCHAR2(100)	The last name of the user
email	VARCHAR2(100)	The email address of the user.

The USER_REGION_PREFERENCES Table

This table contains the filtering information the user can apply to limit what Headlines and Calendar Entries are displayed in the SFA Portal. Each entry in the table associates a user with a Region they wish to have displayed.

Row Name	Format	Description
user_region_prefs_id	NUMBER	Primary key used to uniquely identify
		filtering entries in the table. Should only
		be set by using the associated
		user_region_prefs_id sequence.
rpuserid	NUMBER(30)	The user to which this filtering entry
		belongs. From the RPUSERS table.
region_id	NUMBER	The id of a region that the user wishes to
		have displayed. From the REGION table.

The USER_SFA_LINKS Table

This table contains the filtering information the user can apply to limit what SFA Links are displayed in the SFA Portal. Each entry in the table associates a user with a SFA Link they wish to have displayed.

Row Name	Format	Description
user_SFA_link_id	NUMBER	Primary key used to uniquely identify
		filtering entries in the table. Should only
		be set by using the associated
		user_SFA_link_id sequence.
rpuserid	NUMBER(30)	The user to which this filtering entry
		belongs. From the RPUSERS table.
SFA_link_id	NUMBER	The id of an SFA Link that the user wishes
		to have displayed. From the SFA_LINKS
		table.